

## G.Pullaiah College of Engineering and Technology

(Autonomous)

(Approved by AICTE, New Delhi | NAAC Accreditation with 'A' Grade | Accredited by NBA (CSE, ECE & EEE) | Affiliated to JNTUA)

Nandikotkur Road, Venkayapalli (V), Kurnool - 518452, Andhra Pradesh

DATE: 03-04-2021

To

The Principal, GPCET, Kurnool.

Sir,

Sub: Approval of ADD-ON course for III CE & IV CE Students-Regd

The department of CE requests you to accept the proposal for conducting ADD-ON Course on "Design of Long columns" for the even semester of III & IV year CE students scheduled for the duration of 42 hours. Kindly accept the proposal.

Thanking you sir,

Yours Sincerely

G.Pullaiah College of Engg & Tech.
Nandikotkur Road, VENKAYAPALLI
KURNOOL-518 452 (A.P)



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#### Department Circular - ADD-ON Course

DATE: 04-04-2021

The III year & IV year-I semester CE Students are informed to enroll their names for ADD-ON Course on "Design of long columns" with their respective class-in-charges on or before 16-04-2021. The course commences from 19<sup>th</sup> April and the duration of the course is for 42 hours. The course is conducted from 4 pm to 5 pm regularly.

Bus facility is made available soon after the class work.

HOD-CE

## SYLLABUS FOR ADD-ON COURSE ON DESIGN OF LONG COLUMNS

DAY	TOPICS		
1	Introduction to Reinforced Concrete Structures		
2	Design methods of Reinforced Concrete Structures		
3	Characteristic strengths and loads		
4	Design process and basis for design		
5	Introduction to Short and long columns		
6	Limit state design		
7	Helical columns		
8	Spiral columns		
9	Effective length		
10	Reinforcement detailing		
11	Bi axial failures		
12	Uniaxial and biaxial loading		
13	Design problems		
14	Eulers method		
15	Shear reinforcement		
16	Check for shear		
17	Slenderness ratio		
18	Unsupported length		
19	Bi axial bending		
20	Column subjected to moment		
21	Reinforcement details		
22	Detailing		
23	Design problems		
24	Design problems		



25	Design problems	•

May

# G PULLAIAH COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF CIVIL ENGINEERING ADDON COURSE SCHEDULE

Date: 11/04/2021

		Date: 11/04/2021
III 8	V YEAR – II Semester	
Course	Faculty	Duration
Introduction to Reinforced Concrete Structures	C G Mohan Babu	1 hours
Design methods of Reinforced Concrete Structures	C G Mohan Babu	1 hours
Characteristic strengths and loads	C G Mohan Babu	1 hours
Design process and basis for design	C G Mohan Babu	1 hours
Introduction to Short and long columns	C G Mohan Babu	1 hours
Limit state design	C G Mohan Babu	1 hours
Helical columns	C G Mohan Babu	1 hours
Spiral columns	C G Mohan Babu	2 hours
Effective length	C G Mohan Babu	1 hours
Reinforcement detailing	C G Mohan Babu	2 hours
Bi axial failures	C G Mohan Babu	1 hours
Uniaxial and biaxial loading	C G Mohan Babu	2 hours
Design problems	C G Mohan Babu	1 hours
Eulers method	C G Mohan Babu	1 hours
Shear reinforcement	C G Mohan Babu	1 hours



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# G PULLAIAH COLLEGE OF ENGINEERING & TECHNOLOGY::KURNOOL (Autonomous) Department of Civil Engineering

The following is the list of the students who have attended Add on Course on "C-Programming for Beginners"

S.No	Roll No	Name of the Candidate
1	18AT1A0101	AKASH ANTHONY
2	18AT1A0102	SHAIK APSAR BASHA
3	18AT1A0103	MOHAMMAD ATIFUR RAHMAN
4	18AT1A0104	MOOLA BHARATH KUMAR
5	18AT1A0105	PEDDINTI BHARATHI
6	18AT1A0106	SAI BHARGAVA SASHIDHAR NAIDU
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17	18AT1A0117	BEGARI KAVYAKUSUMA
18	18AT1A0118	BOINI KISHORE
19	18AT1A0119	S.MAHABOOB ALI LAL
20	18AT1A0120	K MAHENDRA



18AT1A0122	
TONITAUTZZ	SANDHOLI MANOHAR BABU
18AT1A0123	G MD FURQAN
18AT1A0125	SHAIK MOHAMMED SAAD RAFI
18AT1A0126	GUNDA MOUNIKA
18AT1A0127	PATHAN OBEDULLAH KHAN
	POTHURAJU PRISCILLA
10/11/0120	POTTONATO PRISCIELA
18AT1A0129	MIDDE RAJESH
18AT1A0130	KURUVA PULIKONDA RANGASWAMY
18AT1A0131	MIDDE RAVI TEJA
18AT1A0132	SHAIK SADDAM
18AT1A0134	NAGINENI SAI CHARAN
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45	18AT1A0148	MURAMANI SWARNA LATHA	
46	18AT1A0149	RACHAMADUGU TEJASWINI	
47	18AT1A0150	STHARUN	-
48	18AT1A0151	BETTALA THRAYAMBA KESWAR	
49	18AT1A0154	VALMIKI TALARI VANAJA	
50	18AT1A0155	CHINTHAKAYALA VENKATA PRATHYUSHA	
51	18AT1A0156	PYDA VENKATA SRIHIMA VISHNU SESHASAI	
52	18AT1A0158	GONDI YESHWANTH	
53	18AT1A0159	SHAIK ZAHEER BASHA	
54	18AT5A0111	M VEERESH	
55	19AT5A0101	KURUVA HARI KRISHNA	
56	19AT5A0102	NARAHARI MAHESH BABU	
57	19AT5A0103	VADDE ROHITH	
58	19AT5A0104	TALLURI SIVAKRISHNA	

### 2017 batch students

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43	17AT1A0152	L WAJAHAT-UL-KAREEM
44	17AT1A0153	KANDULA YOGA MUKESH
45	17AT1A0154	SHAIK ZARIN TAJ
46	17AT1A0155	SHAIK ZEBA ISMATH
47	17AT1A0156	VADITHE MADHURI
48	17AT1A0157	SHAIK NIDA NAAZ
49	18AT5A0101	MADDELA ABHISHEK
50	18AT5A0102	SUGALI AMARESH
51	18AT5A0103	SHAIK MOHAMMED ASIF KAREEM
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56	18AT5A0108	SUGUNAVATH SAINATH NAIK
57	18AT5A0109	TALARI SREENIVASULU
58	18AT5A0111	MUNDARINTI VEERESH
59	18AT5A0112	NALLAGOTI VENU





# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (AUTONOMOUS)

**Department Of Civil Engineering** 



#### ADD ON PROGRAM ONLINE

Topic : Design of Long Columns
Target audience : II and III Year Students

Total Courses hrs: 42 hrs

Selection Procedure: Registration on First

come First serve basis Venue : Seminar Hall



Date of commncement the course: 19 April, 2021. End of Course: 28 June, 2021. Exam Date: 29 June, 2021.





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Nandikotkur Road, Venkayapalli (V), Kurnool - 518452, Andhra Pradesh

1. Eccentrically loaded columns have to be designed for combined axial and
a) Shear force
b) Bending moments
c) Torsion
d) Creep
2. What is the recommended value of effective length if the column is effectively held in position and fixed against rotation in both ends?
a) 0.8 l
b) 0.5 l
c) 0.65 l
d) 0.9 l
3. What is the minimum value of eccentricity provided in columns?
a) 50 mm
b) 20 mm
c) 30 mm
d) 45 mm
4. The strength of the column with helical reinforcement shall be times the strength of similar column with lateral ties.
a) 2.0
b) 1.05
c) 3
d) 1.5
5. The minimum diameter provided for the longitudinal bars is
a) 15 mm
b) 20 mm



c) 12 mm
d) 18 mm
6. What is the minimum number of longitudinal bars provided in the rectangular column?
a) 4
b) 5
c) 6
d) 8
7. The ends of shall be properly anchored.
a) Longitudinal reinforcement
b) Transverse reinforcement
c) Torsional reinforcement
d) Shear reinforcement
8. For longitudinal reinforcing bar, the nominal cover should not be less than
a) 30 mm
b) 20 mm
c) 40 mm
d) 50 mm
9. Which of the following reservoirs is also known as
a) Ground service reservoirs
b) Elevated reservoirs
c) Over head reservoirs
d) Storey reservoirs
10. A system in which water is supplied only for fixed few hours, such system is called
a) Closed
b) Intermittent
c) Combined
d) Lift
11. In system, air relief valves are not required.
a) Gravity
b) Intermittent

c) Continuous

flag

	d) Grid
	12. Which of the following is one of the layouts of distribution systems?
	a) Dual system
	b) Gravity system
	c) Grid Iron system
	d) Pressure system
	13. Which of the following system is also known as an interlaced system?
	a) Tree system
	b) Grid iron system
	c) Circle system
	d) Radial system
	14. Which of the following is also known as a ring system?
	a) Circle
	b) Reticulation
	c) Radial
	d) Interlaced
	15. Varignon's theorem is called as
	a) Principle of Forces
	b) Principle of moments
	c) Principle of points
	d) Theory of couple
	16. A column that can support same load in compression as it can in tension is called
	a) intermediate column
	b) long column
	c) short column
	d) cannot be determined
	17. The strength of compression members subjected to axial compression is defined by curves corresponding to classes
200	a) a, b, c and d
	b) a, d
	c) b, e, f

Ha)

d) e, f, g
18. Which of the following is not a compression member?
a) strut
b) boom
c) tie
d) rafter
19. The best compression member section generally used is
a) single angle section
b) I-section
c) double angle section
d) channel section
20. The best double-angle compression member section is
a) unequal angles with short leg connected
b) unequal angles with long leg connected
c) unequal angles on opposite side of gusset plate
d) unequal angles on same side of gusset plate
21. The flange is classified as semi-compact if outstand element of compression flange of rolled section is less than
a) 8.4ε
b) 10.5ε
c) 15.7ε
d) 9.4ε
View Answer
22. The flange is classified as plastic if outstand element of compression flange of rolled section is less than
a) 8.4ε
b) 9.4ε
c) 10.5e

23. The outstand element of compression flange of a rolled section is 10.2 ( $\epsilon$ =1). The flange will be

d) 15.7ε

classified as

a) compact

Ala

- b) plastic
- c) semi-compact
- d) slender
- 24. The design compressive stress of compression member in IS 800 is given by
- a) Rankine Formula
- b) Euler Formula
- c) Perry-Robertson formula
- d) Secant-Rankine formula
- 25. Which of the following reservoirs is also known as \_\_\_\_\_
- a) Ground service reservoirs
- b) Elevated reservoirs
- c) Over head reservoirs
- d) Storey reservoirs





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